PROJECT MANAGER Don DeBerry, PE (434) 455-3935 (City of Lynchburg)
SURVEYED BY City of Lynchburg
DESIGN SUPERVISED BY Stuart Martin, PE (540) 857-3216 (AECOM)
DESIGNED BY Drew Barrett (540) 857-3359 (AECOM)

SIGNAL PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO
	VA.		Univ. Blvd/Evans Blvd Traffic Signal Design City of Lynchburg	1

COMMONWEALTH OF VIRGINIA
STUART L MARTIN
Lic. No. 43891
PROFESSIONAL ENGINEER

Stuart L Martin
2013.01.07 10:20:08 -05'00'

AECOM TECH. SERV., INC.
ROANOKE, VIRGINIA
ROADWAY ENGINEER

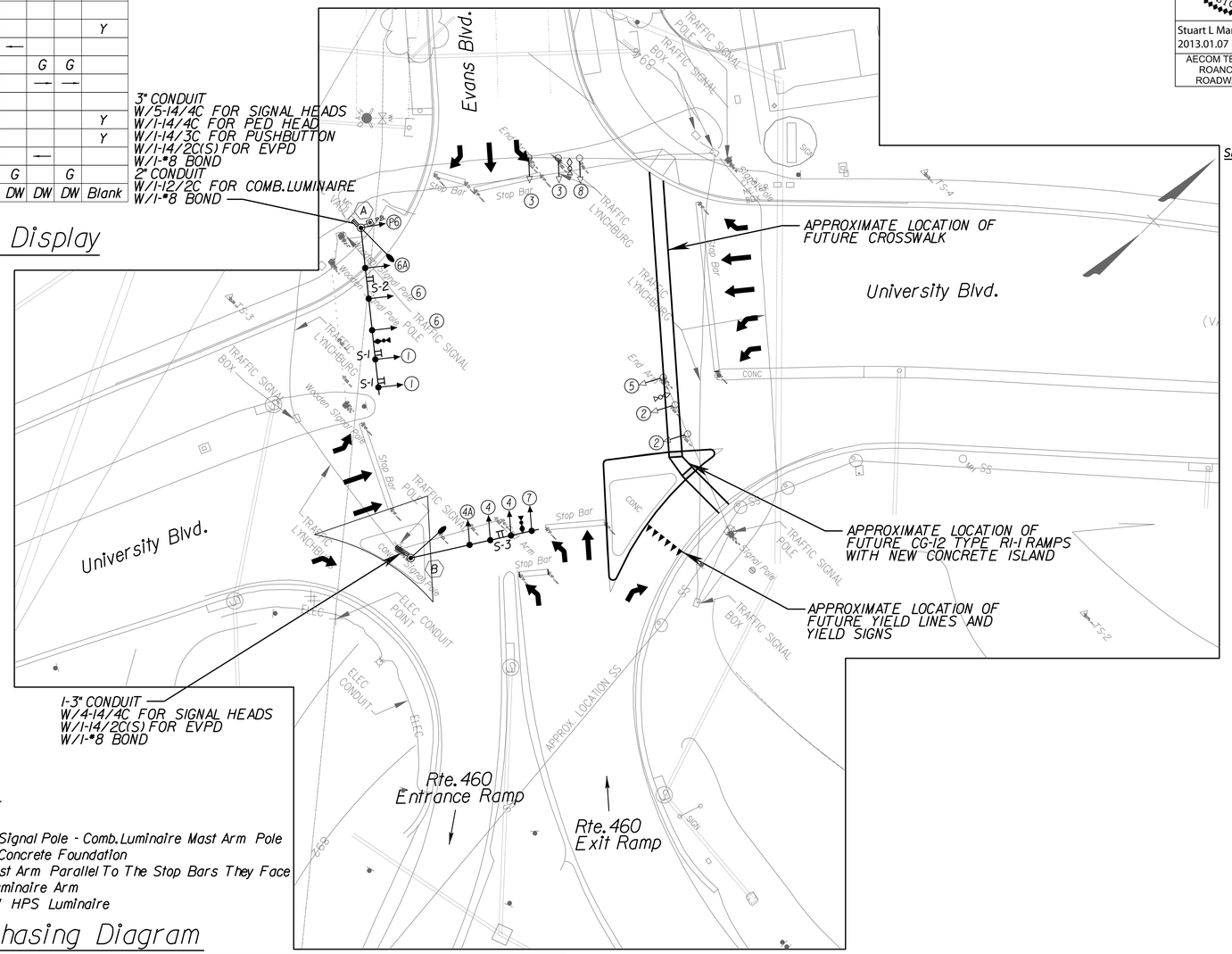
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

COLOR SEQUENCE CHART

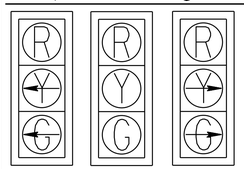
SIGNAL	PHASES								COMBINATIONS								FLASH
	1	2	3	4	5	6	7	8	1&5	1&6	2&5	2&6	3&7	3&8	4&7	4&8	
1	⟵								⟵	⟵							
2		G									G	G					Y
3			⟵										⟵	⟵			
4				G											G	G	
4A				⟵	⟵				⟵		⟵				⟵	⟵	
5					⟵				⟵		⟵						
6						G				G		G					Y
6A						⟵	⟵			⟵		⟵	⟵				Y
7							⟵						⟵		⟵		
8								G						G		G	
P6	DW	DW	DW	DW	DW	W	DW	DW	DW	W	DW	W	DW	DW	DW	DW	Blank

EMPTY BOX DENOTES RED INDICATION

3" CONDUIT
W/5-14/4C FOR SIGNAL HEADS
W/1-14/4C FOR PED HEAD
W/1-14/3C FOR PUSHBUTTON
W/1-14/2C(S) FOR EVPD
W/1-#8 BOND
2" CONDUIT
W/1-12/2C FOR COMB. LUMINAIRE
W/1-#8 BOND



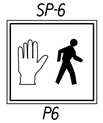
Proposed Signal Head & Sign Display



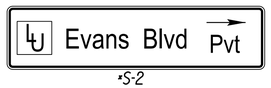
1, 3, 5, 7. 2, 4, 6, 8 4A, 6A

R10-3b
9"x15"
(Provide At Each Pushbutton)
SP-6

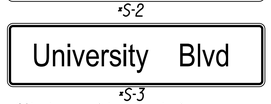
R3-5L
30" x 36"
S-1



P6



*S-2



*S-3

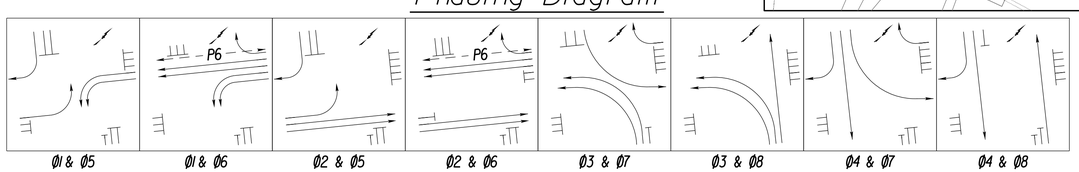
*City to provide street signs

Pole Schedule

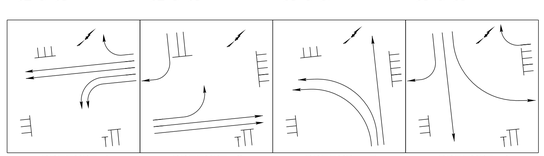
(A)
1-MP-1 Signal Pole - Comb. Luminaire Mast Arm Pole
PF-8 Concrete Foundation
64' Mast Arm Parallel To The Stop Bars They Face
1-18' Luminaire Arm
1-200W HPS Luminaire
Ped. Activation Std. PA-2 W/R10-3b Sign, Std. SP-6

(B)
1-MP-1 Signal Pole - Comb. Luminaire Mast Arm Pole
PF-8 Concrete Foundation
50' Mast Arm Parallel To The Stop Bars They Face
1-18' Luminaire Arm
1-200W HPS Luminaire

Phasing Diagram



Preemption Diagram



SIGNAL GENERAL NOTES

1. All traffic signal equipment, mast arm poles and foundations shall conform to Virginia Department of Transportation (VDOT) Road and Bridge Standards Volume II (Latest Edition), Virginia Department of Transportation (VDOT) Road and Bridge Specifications (Latest Edition) and Section 703 (Signals).
2. Mast arm pole shall conform to VDOT MP-1. The Traffic Engineer shall specify the finish requirements for poles and arms. Poles Shall include 8-bolt circular base plate.
3. Mast arm pole foundation shall conform to VDOT PF-8. Final foundation depth to be furnished by the contractor and submitted to City for approval.
4. Conductor cable, conduit, trench excavation, saw cut, sign mounting details and signal junction boxes shall conform to Virginia Department of Transportation (VDOT) Road and Bridge Standards Volume II.
5. The location of all existing underground or overhead utilities should be considered approximate. The Contractor shall be responsible for the definite location of each utility involved within the area of excavation for work under this contract. The contractor shall call MISS UTILITY OF VIRGINIA (1-800-552-1007 or 811) before beginning work. Where conflicts occur, the Contractor shall contact the Engineer prior to beginning work.
6. All signal heads shall be mounted in accordance with VDOT SM-3 and shall be polycarbonate with black polycarbonate backplates. All traffic signal heads shall be LED 12 inch.
7. It shall be the sole responsibility of the contractor to furnish and maintain, until the work has been accepted by the City, any and all signs, lights, barricades, flagmen, etc., necessary for the safety of the general public, including both vehicular and pedestrian traffic. All costs for the maintenance of traffic shall be included in the lump sum bid item. Maintenance of traffic shall be done according to the Virginia Work Area Protection Manual (Latest Edition).
8. All damages to existing structures, facilities, pavement, grassed areas, etc., shall be restored to existing condition by the Contractor at his EXPENSE.
9. Pedestrian signal heads shall have LED indications, with uniform appearance. Pedestrian Pushbuttons shall be fully ADA compliant. The preferred source is Dialite or approved equal.
10. Contractor shall stake and field verify with MISS UTILITY OF VIRGINIA the pole location before ordering poles and arms. The City Traffic Engineer or his designee shall approve staked pole location prior to construction.
11. Emergency Preemption equipment shall be fully compatible with VDOT's Opticom system.
12. All underground conduit shall be installed in accordance with VDOT Standard EC1-1.
13. Upon completion of the traffic signal installation, the Contractor shall submit to the City Traffic Engineer an accurate and to scale "As-Built" traffic signal plan. Final payment shall not be made until this requirement is satisfied.
14. All existing detection loops are assumed to be working properly and therefore are unchanged from the previous as-built signal plans provided to AECOM in PDF format.
15. Contractor shall ensure that the existing traffic signals are not removed, nor become inoperative, until the new traffic signals are placed in service. At that time, the contractor shall remove the existing traffic signal installation not being used and recycle.
16. Pole foundations shall be flush with sidewalks.
17. Contractor shall check the existing conduits that are being used to insure there is enough room for the proposed cables. Cables that are being replaced shall be removed from the existing conduits.
18. Contractor shall bag proposed signal heads until the proposed signal is put into service.

LEGEND

- S-1 — ARM MOUNTED SIGN AND SIGN DESIGNATION
- PROPOSED SIGNAL HEAD WITH PHASE MOVEMENT
- EXISTING SIGNAL HEAD WITH PHASE MOVEMENT
- PROPOSED SIGNAL POLE
- EXISTING SIGNAL POLE
- (A) — POLE DESIGNATION, SEE POLE SCHEDULE FOR DETAILS
- CONDUIT AND CABLE
- EMERGENCY PREEMPTION DETECTOR (PD-X) AND CONFIRMATION LIGHT (PC-X) [3M OPTICOM OR EQUIVALENT MODEL 700 SERIES]
- EXISTING EMERGENCY PREEMPTION DETECTOR
- 18' LUMINAIRE ARM, 250W HPS TYPE III FULL CUT-OFF

SCALE
0 25' 50'

PROJECT	SHEET NO.
	1